

service of Admiral Johnson and Admiral Clark, attributes that are reflected in their actions to support the men and women under their command.

The greatness of our destiny rests in the hands of every man and woman blessed to call America home. That's why Admiral Johnson has taken so seriously his responsibilities to his sailors. He knew that together they shared equally in the honor of defending a great nation. Admiral, you will be the first to direct all praise to the men and women under your command. But I know that they would direct it back to you—the man at the helm.

Jay, you have served your Navy and your nation well. I want to thank you and Garland for your many years of exemplary service to America, and bid you fair winds and following seas, for I know we will see you again. I know you will find new ways to serve the Navy and America, and I will always rely on your wise counsel.

Admiral Clark and Connie, congratulations and welcome. I am confident that you will both distinguish the noble tradition you inherit today. Admiral, I look forward to working with you as you lead the Navy toward its always magnificent destiny.

I would like to close by speaking directly to the women and men of the U.S. Navy. As we stand here this morning, our sailors are risking their lives above, on, and below the ocean.

But this risk is not without reward—the reward of serving a cause greater than one's own self-interest. I commend your service in the Navy. I hold the Navy closer to my heart than any other human institution that I have ever been a part of—save my family. The Navy for many years was the only world I knew. It is still the world I know best and love most.

I trust in your willingness and ability to uphold the honor of your Navy and your country, for I have seen the best of America in my travels over the last year and know that America deeply appreciates your service. I recognize that we still have many miles to sail to ensure that you are properly rewarded for your continued sacrifice and service to our nation.

Make the most of these days, for you will never forget the honor of your service in this Navy. Nor will your country forget the honor you gave her in seas where so many Americans, like Admiral Burke and Admiral Johnson, fought for the love of their country. Admiral Johnson, I thank you for the honor of inviting me to return to a place I love so well. Admiral Clark, I offer my best wishes and look forward to working with you. Thank you.

GUN DEATHS AMONG YOUNG PEOPLE

Mr. LEVIN. Mr. President, this week we received some positive news from the Centers for Disease Control and Prevention's National Center for Health Statistics. According to newly released statistics, firearm deaths among young people decreased in 1998.

The new report shows that firearm deaths among children and adolescents under 20 dropped 10 percent—from 4,223 in 1997 to 3,792 in 1998. Perhaps even more significant, in 1998, deaths among young people were down 35 percent since 1994, when firearms led to the deaths of 5,833 young people.

It is no coincidence that firearm casualties have been reduced by 35 percent since 1994, the year the Brady Law went into effect. The Brady Law, which requires licensed firearms sellers to conduct criminal background checks on prospective gun purchasers, has successfully kept guns out of the hands of hundreds of thousands of criminals and youths.

Although we can rejoice that fewer youths are subject to the danger of guns, we should still be dismayed that 10 of our young people (on average) die from guns every day. 10 children and adolescents as well as 74 adult Americans suffered gun-related deaths daily in 1998, and that is far too many.

Congress must do more to protect our children and loved ones from these gun tragedies. We can start by strengthening the Brady Law by closing the gun show loophole. That loophole allows perpetrators of violent crimes to buy guns from non-licensed or private sellers, who are not required to conduct criminal background checks. This loophole undermines the successes of Brady by arming those who would otherwise not be permitted to purchase firearms. In May of 1999, the Senate passed legislation to close this loophole by extending criminal background checks to guns sold at gun shows and pawn shops, but opponents of this common sense provision have kept it from becoming law.

It is disheartening to know that Congress has not yet passed sensible gun laws—laws designed to protect American lives. Without addressing this issue, America will continue to lose 10 young people a day to guns, and that is 10 too many.

A COMPILATION OF INFORMATION ON ETHANOL ETHERS

Mr. KERREY. Mr. President, I would like to note the release of a recent publication that all members of Congress should read. This new publication was produced by the Clean Fuels Development Coalition and it includes a presentation of facts about ethanol-based ethers.

As we attempt to deal with the water contamination problems resulting from leaking underground storage tanks, much of the debate is focusing on methanol-based ethers, i.e. MTBE. While MTBE has played an important role in reducing ozone throughout the U.S., the problems of water contamination have lead many to advocate limiting or even banning this product. During this debate a few of our colleagues have expressed confusion about the technical characteristics of ethanol-based ethers, like ETBE. Some have assumed that ethanol-based ethers have characteristics identical to MTBE. As both the Senate and House examine this issue, it is important to be aware of the significant differences between the two products.

For example, ethanol is a renewable, biodegradable product. When converted into ether, ETBE has many favorable characteristics in terms of the way it reacts in soil, water, and air, when compared to MTBE. In the event ETBE escapes into the atmosphere or our water supplies, it can be cleaned up much more efficiently than MTBE. ETBE is far less persistent than MTBE and remediation technologies have shown to be very effective.

Understanding the attributes of ETBE is also important at a time when every citizen is painfully aware of our dependence on imported petroleum and the relationship of supply and price. It may be possible to use ETBE in volumes up to 22 percent in gasoline. This addition of a clean, domestic fuel could significantly impact our gasoline supply situation, particularly in our most heavily populated and polluted urban areas.

I have long been a supporter of ETBE and while there are a number of technical and market challenges remaining before this fuel reaches full commercialization, its promise is undeniable. The petroleum industry, environmental groups, ethanol producers, and the auto industry have long recognized the superior qualities of ETBE. For that promise to be realized we need to ensure that ETBE is not included in any ban or limitation of fuels that result from leaking underground storage tank problems. I commend the Clean Fuels Development Coalition for their continued support of this important fuel as well as my own state of Nebraska which has more than a decade of experience in ETBE development.

Mr. President, at this time I would ask unanimous consent that a copy of the Clean Fuels Development Coalition fact book on ETBE be entered into the CONGRESSIONAL RECORD.

ETBE FACT BOOK

The U.S. Department of Energy's Energy Information Administration projects U.S. Oil imports could grow to nearly 60-70 percent of total U.S. Oil consumption by the year 2010 if new U.S. Policies are not adopted to reverse current trends or if world crude oil prices decline. According to the American Petroleum Institute, the U.S. is currently dependent of foreign oil for 51.8 percent of its energy needs. Currently, 46.7 percent of the imports come from OPEC countries, with 19.1 percent originating from the Persian Gulf region.

Historically, market prices have been the primary argument driving the dependence on cheap crude oil imports and the perceived aversion to the alternative fuels. The market price of crude oil can be very misleading because it excludes external costs associated with its use, such as environmental and military costs. The actual cost of oil, including external costs, is estimated to be over \$100 per barrel or about \$3-\$5 per gallon of gasoline, according to the U.S. General Accounting Office.

R. James Woolsey, former director of the Central Intelligence Agency, believes that the world's dependence on oil from the Middle East and the Caspian Basin is one of the

three major threats to America's national security, along with attacks from rogue nations and terrorism.

According to General Accounting Office estimates, at current capacity, fuel ethanol and other oxygenates could displace about 305,000 barrels of petroleum per day used to produce gasoline. The total amount of petroleum that ethanol could displace would be approximately 3.7 percent of estimated U.S. Gasoline consumption in 2000. New presidential and Congressional initiatives envision tripling these percentages by 2010.

Energy production and use accounts for 80 percent of air pollution and 66 percent of the human contribution to global warming. Gasoline obviously accounts for a majority of energy, and specifically, oil consumption. Displacing gasoline with a renewable, less toxic, CO₂-friendly, domestically produced fuel represents good environmental policy.

Each bushel of corn used to produce ethanol is 100 percent pure profit for the country. The ethanol industry makes \$4.50 worth of products out of a \$2.25 bushel of corn, doubling its value, enriching the national economy and displacing foreign oil. This improves the U.S. balance of trade payments by several billion dollars, and increases the value of U.S. Grain production. In the future, emerging cellulose conversion technology will make it possible for the entire country to function as a transportation fuel producer using alternative energy crops—switchgrass in Montana, sorghum in Oklahoma, sycamores in Louisiana, poplars in Vermont and waste biomass in New York.

In addition to stimulating the economy, ethanol helps reduce the federal deficit. The United States General Accounting Office (GAO) issued a report stating that a doubling of ethanol production would save the federal government \$500 million to \$600 million annually.

Despite ethanol's benefits, it has had problems entering the U.S. Gasoline pool. Due to difficulties with transportation regional fuel specifications and a increase in fuel vapor pressure, ethanol blends have been used mostly in the Midwest. But there is a way to combine the benefits of ethanol into a fuel additive that would be better accepted by the nation's refiners—producing ethyl tertiary butyl ether, ETBE.

By combining ethanol with isobutylene, which is derived from natural gas liquids or petroleum products, ETBE offers refiners, agriculture and policy makers another avenue to get the benefits of ethanol into gasoline and minimize many of its current obstacles.

The vast majority of ethanol is sold in the Midwest region of the United States. Ethanol blends are doing a great job reducing carbon monoxide and air toxic pollution. However, the more populated cities on the East and West Coasts face tougher emission standards that are primarily based on reducing the vapor pressure of gasoline. ETBE has the lowest vapor pressure of oxygenates available in the marketplace and a high octane level. Compared to other additives, including ethanol alone, it reduces more evaporative and tailpipe emissions, and lowers toxics and carbon monoxide. The U.S. Department of Energy found "significant benefits" to using ETBE made from biomass, especially in California.

Each gallon of ETBE displaces a barrel of imported oil and reduces the amount of oil that refiners use to make gasoline. Each gallon of ETBE helps the U.S. reduce its \$52 billion oil import bill, stimulates the national economy and improves our balance of trade.

Turning lower-valued domestic natural gas into high valued liquid fuel products can help areas of the country that have suffered from America's dramatic decline in crude oil production. American agriculture, working in cooperation with domestic natural gas producers to produce leaner domestic fuels, is a powerful combination of allies and resources.

Making ETBE can stretch our domestic fuel supplies. Using our natural gas resources and increasing the output of our domestic refineries is an important part of our energy security strategy. Using natural gas as a liquid in existing vehicles will displace imports much faster than waiting for consumers to switch to dedicated natural gas fuel vehicles.

Recent University of Nebraska-Lincoln studies indicate that ETBE is several times less soluble than MTBE, and several times more biodegradable. Compared with MTBE, ETBE, and ethanol mixtures are less likely to reach groundwater supplies, and are more easily removed by natural attenuation and bioremediation, according to preliminary study results.

As automakers continue to be burdened with reducing emissions, their ability to provide car that are cleaner, yet still guaranteed to perform, is challenged. ETBE helps automakers get cleaner fuels that have lower sulfur, less toxics and improved driveability index. While ethanol blends help in this area, automakers prefer the use of ethers such as ETBE.

The idea of ETBE is not new. In an effort to reduce the dangerously high levels of pollution in Paris, the French Parliament voted to have a renewable content standard for its gasoline. The choice to meet the new renewable standard—ETBE. Lyondell Chemical Company is the world leader in ETBE production technology. Other companies have also produced and sold ETBE in limited quantities in the United State. Amoco produced and sold ETBE at its Yorktown, VA, refinery for several years and marketed the blends on the East Coast. Lyondell Chemical, formerly Arco Chemical Co., the world's largest methyl tertiary butyl ether producer, has produced ETBE several times at its MTBE plants in the U.S. In fact, all of the MTBE plants in the United States could easily produce ETBE with only minor adjustments to optimize performance.

The use of MTBE in the reformulated gasoline program has resulted in growing detections of MTBE in drinking water. The majority of these detections to date have been well below levels of public health concern. Detections at lower levels have, however, raised consumer concerns about taste and odor.

The EPA Blue Ribbon Panel on Oxygenates considered the fuel applications and technical characteristics of MTBE and other ethers during public sessions in 1999. The panel concluded that ETBE and other ethers have been used less widely and studied less than MTBE. The panel's final report states that, "To the extent that they have been studied, they (other ethers) appear to have similar, but not identical, chemical and hydrogeologic characteristics. The panel recommends accelerated study of the health effects and groundwater characteristics of these compounds. . ."

In response to anticipated questions about the hydrogeologic characteristics of ETBE, the Department of Chemical Engineering at the University of Nebraska conducted preliminary research into the behavior of ETBE in water. The preliminary research suggests that ETBE's ubiquity properties are less

than half those of MTBE. In addition, a preliminary report by the University notes that existing literature suggests a faster degradation rate for ETBE than MTBE. The Nebraska Ethanol Board and several federal agencies have proposed additional research on the properties of ETBE.

Starting this year, federal Phase II reformulated gasoline, RVG, must deliver a four percent to seven percent reduction in NO_x emissions relative to the 1990 baseline gasoline. ETBE is particularly well suited for meeting this requirement because ETBE can reduce aromatic content in RFG. Automobile NO_x emissions decrease with increasing octane number and with decreasing aromatics content. ETBE fills the bill on both counts.

ETBE's higher octane—110-112 (R+M)/2—enables an RFG blender to substitute ETBE for aromatics, including benzene, as a source of RFG octane. Reducing aromatics content, in turn, reduces emissions of NO_x and toxics, while improving driveability performance.

For U.S. Refiners, this means more reduction—via dilution—in the levels of aromatics, olefin, and sulfur, all of which are undesirable in RFG.

Petroleum use for transportation will remain one of the largest contributors of greenhouse gas emissions in the U.S. Through the year 2020, according to projections by the U.S. Department of Energy's Energy Information Administration. In 2020, petroleum will account for 42 percent of greenhouse gas emissions in the U.S., mostly for transportation use, according to the report. Overall, carbon emissions from energy use will increase at an average annual rate of 1.3 percent due to rising energy demand and slow penetration of renewable, DOE said in its Annual Energy Outlook: 2000 report.

Because ETBE is made from renewable ethanol and natural gas feedstock, it is superior in reducing greenhouse gas emissions. In addition, because the use of ETBE often replaces aromatics from the gasoline pool, its ability to reduce the harmful pollutants as well as greenhouse gas emissions from gasoline are improved.

As a result of the addition of renewable ethanol, ETBE is an oxygenated fuel. In addition, ETBE has a higher octane rating and lower Reid vapor pressure, RVP, than its competitor, MTBE. ETBE blended gasoline has several benefits:

The oxygen reduces carbon monoxide emissions.

The lower Rvp lessens pollution that forms ozone.

Simply through volumetric displacement, ETBE reduces sulfur, toxic substance and other harmful elements of gasoline.

The high octane rating reduces the need for carcinogenic hydrocarbons used to increase octane such as benzene, which cause cancers.

Due to ethanol's positive energy balance when produced from grain (1 to 1.3) and cellulose (1 to 2), it reduces greenhouse gases.

One of the primary reasons ethanol has difficulty competing in the federal RFG program is that it increases the volatility of gasoline. By turning ethanol into ETBE, this concern is eliminated. ETBE's blending properties are an excellent match for both engine and emissions performance, much better than replacing MTBE with more alkylates.

Another issue with ethanol is transportation. Currently in the U.S., ethanol blended gasoline cannot practically be shipped to markets via pipelines—the most common method of transportation for petroleum products. Gasoline blended with ETBE is

compatible with the current gasoline distribution system, can be pipelined and stored with gasoline and will reduce the transportation and storage costs associated with ethanol usage.

ETBE can be blending at volumes of up to 17 vol%, with the possibility of the maximum blending being increased to 22 vol%, while straight ethanol is capped at 10 vol% and MTBE is limited to 15 vol%. This means that blending gasoline with ethanol can stretch our nation's gasoline supply further.

The higher allowable volume of ETBE means:

ETBE blends may prove to be the most cost-effective means of bringing the use of alternative fuels to the market place, consistent with new environmental and energy policy, EPACT, demands being placed on U.S. refiners.

ETBE blends contain more volume derived from renewable, domestic energy sources.

While ethanol plays an important role in the federal RFG program, its use is mostly confined to the few RFG areas in the Midwest. Through ETBE, ethanol use could expand to play a larger role in the RFG program as a whole.

If ETBE could capture only a small portion of the U.S. Gasoline market—for example a percentage of the RFG demand in the Northeast, where little of no ethanol is currently used—the increase in ethanol used in gasoline would be significant.

As much as 350 million gallons of new ethanol demand would be created if just 60 percent of the oxygenates used in the eight states of the Northeastern States for Coordinated Air Use Management, NESCAUM, were to use ETBE.

Along with the increase in ethanol use comes a likely increase in corn demand to produce the ethanol. More than 140 million bushels of corn would be required to meet the aforementioned ETBE demand.

ETBE has been in commercial production in Europe since the early 1990s. While France is the European leader for both the production and consumption of ETBE, other European countries are following. European policy makers prefer ETBE to MTBE because of its overall greenhouse gas reductions that come from its renewable ethanol content. ETBE is preferred over ethanol by European refiners because of better logistics and improved gasoline and drive ability quality.

In addition, more ether demand is expected with the new European cleaner-burning fuel legislation taking effect in 2000 and 2005.

The Clean Fuels Development Coalition is a non-profit organization dedicated to the development of alternative fuels and technologies to improve air quality and reduce U.S. Dependence on imported oil. The broad CFDC membership includes ethanol and ether producers, agricultural interests, automobile manufacturers, state government agencies, and engineering and new technology companies. Since its beginning in 1988, the coalition has become a respected source of information for state, local, and federal policy makers as well as private industry on a range of transportation, energy, and environmental issues.

NOW IS NOT THE TIME TO RE-ENGAGE WITH THE INDONESIAN MILITARY

Mr. WELLSTONE. Mr. President, colleagues, I rise today to draw attention to a recent decision by the Administration to reinitiate military ties with the

government of Indonesia. Despite congressional concerns, the U.S. navy, marines, and coast guard last week began a 10-day joint military exercise known as CARAT, Cooperation Afloat Readiness and Training, with their Indonesian military counterparts. Although the Administration sees this mission as a routine good-will mission, it is in fact the first time U.S. and Indonesian armed forces have worked together since the United States cut military ties with Indonesia last year. Colleagues, in case you don't recall, we cut those military ties after East Timor was devastated by Indonesian troops. We cut those ties because Indonesian soldiers are reported to have been active participants in a coordinated, massive campaign of murder, rape, and forced displacement in East Timor.

The administration's decision to go forth with a CARAT exercise again this summer is simply indefensible. Given the human rights violations committed by the Indonesian military in East Timor and the lack of accountability for them, and the Indonesian military's continued ties to militias in West Timor, one must ask not only the question why we are so eager to re-engage with this military at all, but why we feel compelled to do so now. Now is not the time to conduct joint exercises with the Indonesian military; now is the time to demand its accountability. To do otherwise is to tacitly condone its conduct.

Conditions continue to deteriorate in East Timorese refugee camps in West Timor and throughout the Indonesian archipelago. Up to 125,000 East Timorese still languish in militia-controlled refugee camps in West Timor almost one year after the people of East Timor voted overwhelmingly for independence from Indonesia. Many of the refugees wish to return home but are afraid to do so. Today refugee camps remain highly militarized, with East Timorese members of the Indonesian military living among civilian refugees. And despite promises by the Indonesian government to disarm and disband militias, there are credible reports of Indonesian military support for militia groups. These same militias have easy access to modern weapons. Earlier this month the U.N. High Commissioner on Refugees had to suspend refugee registration indefinitely due to violent militia assaults on its staff, volunteers and refugees, and though UNHCR has continued its work in other areas, UNHCR and other aid workers continue work under extremely dangerous conditions.

There has also been an upsurge in militia border incursions into East Timor with attacks on U.N. Peacekeepers and civilians. I regret to say that earlier this week a peacekeeper from New Zealand was shot and killed. Militia leaders, the Indonesian military, and the

West Timorese press continue to sponsor a mass disinformation campaign alleging horrific conditions in East Timor and abuse by international forces. Further, Indonesia has yet to arrest a single militia leader or member of its military accused of human rights violations in East Timor. Instead of reinitiating joint military exercises and allowing the sale of certain spare military parts, the Administration should increase its pressure on the government of Indonesia to fulfill past promises to disarm and disband militias in West Timor, and insure today that the Indonesian military is not linked to such militias. Militia leaders must be removed from refugee camps and those accused of human rights violations must be held accountable. Furthermore, Indonesia must make real its pledge to provide international and local relief workers safe and full access to all refugees.

There is currently considerable unrest throughout the Indonesian archipelago. Reports abound about the direct involvement of the Indonesian military in much of the violence. In the past nineteen months thousands of people in Maluku, also known as the Moluccan Islands, have been killed in fighting between Christians and Muslims. It is known that members of the Indonesian military supported and, in some cases, caused the violence. On July 18, Indonesia's Minister of Defense Juwono Sudarsono admitted that there were "some or even many" army members who have become a "major cause of clashes" in Ambon. Credible human rights organizations also report an escalation of violence in West Papua with the Indonesian military actively supporting East Timor-style militias there. Moreover, the Indonesian military has repeatedly broken a cease-fire in the province of Aceh.

Conditions in Indonesia are deteriorating. On Sunday U.N. Secretary General Kofi Annan told Indonesia's President Wahid that U.N. peacekeepers may be needed for the archipelago but President Wahid said his government could end the conflict by itself. He did note, however, that Indonesia's overstretched military might need logistical aid from friendly countries such as the United States. I worry that the decision the Administration has made to re-initiate military ties with Indonesia is sending the wrong signal to President Wahid. It should be made very clear to President Wahid that the U.S. will not provide assistance to Indonesia to do what it did before in East Timor.

Although I believe we should support Indonesia, we must recognize that the type of support we provide will directly influence the shape Indonesia takes in the future. The Administration has not only proceeded with the CARAT exercise despite congressional concerns but is moving ahead with "Phase I" of a